



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,920	10/31/2003	Daniel C. Conrad	US19984054-8	3660

7590 09/11/2007
WHIRLPOOL PATENTS COMPANY - MD 0750
500 Renaissance Drive, Suite 102
St. Joseph, MI 49085

EXAMINER

KHAN, AMINA S

ART UNIT	PAPER NUMBER
----------	--------------

1751

MAIL DATE	DELIVERY MODE
-----------	---------------

09/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/698,920	Applicant(s) CONRAD ET AL.	
	Examiner Amina Khan	Art Unit 1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 24-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 24-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 2, 2007 has been entered.
2. Claims 1-13 and 24-37 are pending. Claims 14-23 have been cancelled. Claims 1,13,27,29 and 30 have been amended. Claims 31-37 are new.
3. All 35 U.S.C. 112, second paragraph, rejections of claims 1-13 and 24-29 are withdrawn in view of applicant's amendments.
4. Claims 1-5,13,24,27,29 and 30 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) for the reasons set forth in the previous office action.
5. Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) and further in view

Art Unit: 1751

of De Pas et al. (US Patent 3,163,028) for the reasons set forth in the previous office action.

6. Claims 7 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) and further in view of Tatch et al. (US 5,431,827) for the reasons set forth in the previous office action.

7. Claims 8,9,11 and 12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) and Tatch et al. (US 5,431,827) and further in view of Krugmann (US 4,252,546) for the reasons set forth in the previous office action.

8. Claims 25,26 and 28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) and further in view of Tatch et al. (US 5,431,827) and Krugmann (US 4,252,546) for the reasons set forth in the previous office action.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 31-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn et al. (US Patent 5,962,390) in view of Dickey (US 3,410,118) and further in view of Hallman et al. (US 2003/0196277).

Flynn et al. teach dry compositions comprising perfluorocarbons, perfluoroethers, polysiloxanes (column 110, lines 1-10), hydrofluorocarbons, and surfactants with a hydrophilic-lipophilic balance less than 14. Flynn et al. further teach methods of cleaning fabrics comprising contacting fabrics with a cleaning composition comprising an alkoxy-substituted perfluoroalkane, agitating to promote dissolving, dispersing or displacing of soil using any conventional agitation means, removing the cleaning composition, rinsing using any conventional dry cleaning solvent (as mentioned above) and air drying with or without added heat. In one embodiment, Flynn et al. further teach that co-solvents may be chosen such that the resulting composition has no flash point (column 8, line 34 to column 9, line 6; column 10, lines 4-18).

Flynn et al. are silent as to the step of oscillating randomly in opposite directions as instantly claimed and do not teach repeating the oscillation and repeating the oscillation step. Flynn et al. is silent as to the flash points of the compositions. Flynn et al. do not teach the composition detection and sensing means.

Dickey, in the analogous art of dry cleaning methods, teaches dry cleaning apparatus with baskets which may be selectively rotated in opposite directions (column 3, lines 9-15).

Hallman et al. teach dry cleaning methods in which turbidity sensors which sense the cleanliness of the working fluid (paragraph 0041) conductivity sensors, which sense

Art Unit: 1751

the water content of the fluid (paragraph 0030), solvent vapor pressure sensors (paragraph 0046), temperature sensors (paragraph 0051), basket level sensors and conductivity sensors (paragraph 0060), monitor which add water to basket (paragraph 0061) and humidity sensors (paragraph 0063).

It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the primary reference by incorporating the agitation means taught by Dickey because the agitation means taught by Dickey allow for improved mixing of the working fluids and fabrics during dry cleaning. Furthermore, the primary reference invites the inclusion of "any conventional agitation means" (column 8, lines 56-59). The burden is on the applicant to prove otherwise. It would have been further obvious to optimize the cleaning and drying steps by randomizing and repeating the oscillation steps because optimization of a result effective variable and repetition of steps only requires routine skill in the art. Furthermore it is conventional to repeat oscillation steps.

Regarding the instantly claimed flash points, Flynn et al. teach that while in one embodiment where perfluorocarbons are combined with cosolvents, solutions with no flash point can result. However, perfluorocompounds may also be used alone (column 8, lines 35-51) which encompass the flash point ranges instantly claimed. It would be obvious to one of ordinary skill in the art that the perfluorocompounds may have flash points in the instantly claimed range. The patent office is not equipped to measure the flash points.

It would have further been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Flynn by incorporating the sensing

methods for controlling the fluid level, concentration and temperature as taught by Hallman because Hallman teaches the utility of providing a variety of sensors for controlling the functions and composition of the dry cleaning fluid for efficient laundering of fabrics.

Response to Arguments

11. Applicant's arguments filed Flynn in view of Dickey have been fully considered but they are not persuasive. The examiner argues that Flynn teaches dry cleaning compositions comprising similar components such as perfluorocarbons, polysiloxanes, hydrofluorocarbons that would inherently possess the instantly claimed properties and would be substantially inert. Dickey and Flynn are both directed toward dry cleaning methods and Flynn invites the inclusion of conventional agitation means. It would be obvious to substitute oscillations into the methods of Flynn to arrive at the predictable result of efficient clothing cleaning.

12. The affidavit filed on June 7, 2007 under 37 CFR 1.131 has been considered but is ineffective to overcome the Flynn and Dickey references. The affidavit is not commensurate in scope with the claims because it does not recite data showing any of the claimed method steps. The affidavit does not show lab notebook pages signed, witnessed and dated with experimental data.

For these reasons the rejections are maintained and so are those further in view of De Pas, Tatch and Krugmann.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AK

AK
August 31, 2007

Lorna M. Douyon
LORNA M. DOUYON
PRIMARY EXAMINER